

SPECIFICATIONS AND CONSTRUCTION MATERIAL INFORMATION

All our handles are composed of Long Glass Nylon which enhances the thermal properties compared to commonly used materials such as aluminum; in addition, this lightweight material is stronger and more wear-resistant. From temperatures of -40C to +50C, each handle is designed to battle the most hostile environments

The Handle-Tech Handle has a safe lifting capacity of 400lbs with a breaking point at 1125 lbs. *Note that this device was designed for hand-use only and should only be used as designed.

The following specifications apply to all Handle-Tech handles.

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	88.0 - 100	88.0 - 100	Average value: 94.0 Grade Count:4
Hardness, Rockwell R	115 - 122	115 - 122	Average value: 120 Grade Count:16
Tensile Strength, Ultimate	165 - 318 MPa	23900 - 46100 psi	Average value: 237 MPa Grade Count:21
	127 - 353.701 MPa	18400 - 51300.1 psi	Average value: 147 MPa Grade Count:3
	@Temperature -40.0 - 121 °C	@Temperature -40.0 - 250 °F	
	95.0 - 130 MPa	13800 - 18900 psi	Average value: 147 MPa Grade Count:2
	@Temperature 130 - 175 °C	@Temperature 266 - 347 °F	
	95.0 - 130 MPa	13800 - 18900 psi	Average value: 147 MPa Grade Count:2
	@Time 1.80e+7 - 7.20e+7 sec	@Time 5000 - 20000 hour	
Tensile Strength, Yield	148 - 285 MPa	21500 - 41300 psi	Average value: 223 MPa Grade Count:21
	144.79 - 144.79 MPa	21000 - 21000 psi	Average value: 145 MPa Grade Count:1
	@Temperature 93.3 - 93.3 °C	@Temperature 200 - 200 °F	
Elongation at Break	1.20 - 4.00 %	1.20 - 4.00 %	Average value: 1.99 % Grade Count:37
	1.80 - 2.20 %	1.80 - 2.20 %	Average value: 1.98 % Grade Count:2
	@Temperature -40.0 - 121 °C	@Temperature -40.0 - 250 °F	
Modulus of Elasticity	10.3 - 23.2 GPa	1500 - 3360 ksi	Average value: 18.9 GPa Grade Count:20
	11.9 - 20.8566 GPa	1730 - 3025.05 ksi	Average value: 14.9 GPa Grade Count:2
	@Temperature -40.0 - 121 °C	@Temperature -40.0 - 250 °F	
Flexural Yield Strength	234 - 460 MPa	33900 - 66700 psi	Average value: 350 MPa Grade Count:39
	260 - 260 MPa	37700 - 37700 psi	Average value: 260 MPa Grade Count:1
	@Temperature 80.0 - 80.0 °C	@Temperature 176 - 176 °F	
Flexural Modulus	0.461 - 22.8 GPa	66.9 - 3300 ksi	Average value: 17.4 GPa Grade Count:39
	0.227527 - 19.3053 GPa	33.0005 - 2800.04 ksi	Average value: 9.78 GPa Grade Count:4
	@Temperature -40.0 - 121 °C	@Temperature -40.0 - 250 °F	
Izod Impact, Notched	0.950 - 6.62 J/cm	1.78 - 12.4 ft-lb/in	Average value: 2.27 J/cm Grade Count:33
	1.30 - 7.68816 J/cm	2.44 - 14.4031 ft-lb/in	Average value: 4.51 J/cm Grade Count:2
	@Temperature -40.0 - 149 °C	@Temperature -40.0 - 300 °F	
Izod Impact, Unnotched	10.7 - 5340 J/cm	20.0 - 10000 ft-lb/in	Average value: 26.4 J/cm Grade Count:16
Izod Impact, Notched (ISO)	11.0 - 30.0 kJ/m ²	5.23 - 14.3 ft-lb/in ²	Average value: 15.8 kJ/m ² Grade Count:3
Charpy Impact Unnotched	6.50 - 15.0 J/cm ²	30.9 - 71.4 ft-lb/in ²	Average value: 10.0 J/cm ² Grade Count:9
	6.00 - 9.70 J/cm ²	28.6 - 46.2 ft-lb/in ²	Average value: 8.05 J/cm ² Grade Count:7


Charpy Impact, Notched	@Temperature -40.0 - 30.0 °C	1.30 - 5.40 J/cm ²	6.19 - 25.7 ft-lb/in ²	Average value: 2.68 J/cm ² Grade Count:9
		1.20 - 4.60 J/cm ²	5.71 - 21.9 ft-lb/in ²	Average value: 1.88 J/cm ² Grade Count:6
Dart Drop, Total Energy	@Temperature -30.0 - 30.0 °C	7.85 - 16.4 J	5.79 - 12.1 ft-lb	Average value: 12.1 J Grade Count:1
	@Temperature -20.0 - -20.0 °C	7.85 - 16.4 J	5.79 - 12.1 ft-lb	Average value: 12.1 J Grade Count:1
	@Thickness 3.18 - 3.18 mm		@Thickness 0.125 - 0.125 in	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+9 - 1.00e+16 ohm-cm	1.00e+9 - 1.00e+16 ohm-cm	Average value: 6.94e+14 ohm-cm Grade Count:15
Surface Resistance	1.00e+10 - 1.00e+16 ohm	1.00e+10 - 1.00e+16 ohm	Average value: 8.50e+14 ohm Grade Count:12
Dielectric Strength	19.7 - 22.0 kV/mm	500 - 559 kV/in	Average value: 19.9 kV/mm Grade Count:14
Thermal Properties	Metric	English	Comments
CTE, linear	10.0 - 27.0 µm/m-°C	5.56 - 15.0 µin/in-°F	Average value: 21.5 µm/m-°C Grade Count:18
Thermal Conductivity	0.300 - 0.548 W/m-K	2.08 - 3.80 BTU-in/hr-ft ² -°F	Average value: 0.424 W/m-K Grade Count:4
Melting Point	220 - 262 °C	428 - 504 °F	Average value: 253 °C Grade Count:11
Deflection Temperature at 0.46 MPa (66 psi)	220 - 262 °C	428 - 504 °F	Average value: 254 °C Grade Count:11
Deflection Temperature at 1.8 MPa (264 psi)	210 - 263 °C	410 - 505 °F	Average value: 251 °C Grade Count:37
Flammability, UL94	HB	HB	Grade Count:12

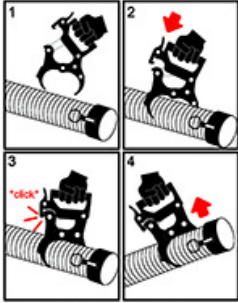
SAFETY LABELS

HANDLE-TECH™


All Handle-Tech handles are made from long glass nylon giving them high strength and superior durability with a low temperature coefficient.



Handle-Tech handles allow you to safely and efficiently manipulate hose and pipe in any climate or location.




Maximum Lifting Weight **400LBS/181Kg**.
Designed to be used **ONLY** as a Hand Tool.



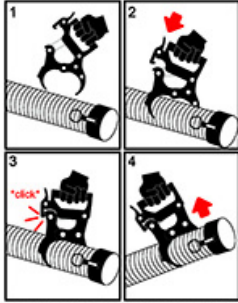
For more product information, technical specifications, use and operation please refer to our web site:
WWW.HANDLE-TECH.COM
Manufacturer's Warranty is 90 days from date of purchase and covers defects and breakage under normal use.
Made in Canada, Patent Pending, Copyright 2013

HANDLE-TECH™


Toutes les poignées Handle-Tech sont faites de nylon renforcé de fibres de verre longues, en leur donnant une grande résistance et une durabilité supérieure avec un faible coefficient de température.



Handle-Tech poignées vous permettent de manière sûre et efficace manipuler les flexibles et tuyaux dans toutes les conditions climatiques ou d'emplacement.




Poids maximum de levage **400LBS/181Kg**.
Conçu pour être utilisé **UNIQUEMENT** comme un outil à main.



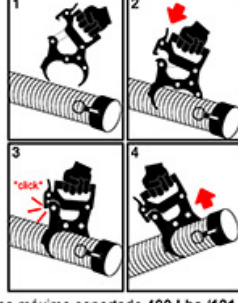
Pour plus d'informations sur le produit, les caractéristiques techniques, utilisation et de fonctionnement, veuillez vous reporter au site web:
WWW.HANDLE-TECH.COM
La garantie du fabricant est de 90 jours à compter de la date d'achat et couvre les défauts et la rupture dans des conditions normales d'utilisation.
Fabriqué au Canada Brevet Déposé Copyright 2013

HANDLE-TECH™


Todos los dispositivos de Handle-Tech están fabricados con fibra de vidrio reforzada con nylon que proporciona una alta resistencia y durabilidad superior con un bajo coeficiente de temperatura.



Los dispositivos de Handle-Tech le permitirán manipular de manera segura y eficiente mangueras y tuberías en cualquier clima o ubicación.




Peso máximo soportado **400 Lbs./181 Kgs**.
Diseñado para ser utilizado **ÚNICAMENTE** como Herramienta Manual.



Para obtener más información de los productos, especificaciones técnicas, consejos, uso y operación, por favor visite nuestro sitio web:
WWW.HANDLE-TECH.COM
La garantía del fabricante es de 90 días posteriores a partir de la fecha de compra y cubre defectos y rupturas en condiciones normales de uso.
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HANDLE-TECH™


本公司所有的工业把手均由玻璃尼龙制造，保证了产品即使在低温状态下的卓越的高强度和耐用性。



无论在何种情况下，本产品可极大的提高对管材操作效率和安全性。



最大承受重量 **181 公斤 (400磅)**
产品设计仅为手工使用。



请参考以下网址以获得更多产品信息、技术指标和用户须知：
WWW.HANDLE-TECH.COM
任何瑕疵，以及在正常使用下的环境，本产品享90天保修（从购买日期起）
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